

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SHAO-HUA GUO, WEI WANG,
and DANIEL B. POURREAU

Appeal 2008-0089
Application 09/934,878
Technology Center 1600

Decided: November 29, 2007

Before CHARLES F. WARREN, PETER F. KRATZ, and
JEFFREY T. SMITH, *Administrative Patent Judges*.

KRATZ, *Administrative Patent Judge*.

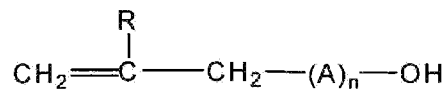
DECISION ON APPEAL

1 This is a decision on an appeal from the Examiner's final rejection of claims 1, 3-11, and 14-18, the only claims that remain pending in this application. We have jurisdiction pursuant to 35 U.S.C. § 6.

Appellants' invention is directed to a process for making an acrylic polyol from an allylic alcohol of a specified formula and an alkyl or aryl acrylate or methacrylate monomer of a specified formula while employing a free radical initiator with the gradual addition of the acrylic monomer and initiator, and using a temperature of 100-250°C. Claim 1 is illustrative and reproduced below:

1. A process for making an acrylic polyol, said process being performed essentially in the absence of styrene, methyl acrylate and methyl methacrylate, and comprising:
 - (a) initially charging a reactor with an allylic alcohol, 0-50% of the total amount to be used of a C₂-C₂₀ alkyl or aryl acrylate or methacrylate monomer and 0-100% of the total amount to be used of a free-radical initiator;
 - (b) heating the reactor contents to a temperature within the range of 100-250°C; and
 - (c) gradually adding to the reactor the remaining acrylic monomer and initiator;

wherein the allylic alcohol has the general structure:



in which R is hydrogen, a C₁-C₁₀ alkyl, or a C₆-C₁₂ aryl group; A is an oxyalkylene group; and n, which is an average number of oxyalkylene groups, is within the range of 1 to about 5; and wherein the process gives a total monomer conversion greater than about 90%.

The Examiner relies on the following prior art references as evidence in rejecting the appealed claims:

Guo (Guo '073)	US 5,475,073	Dec. 12, 1995
Guo (Guo '500)	US 6,127,500	Oct. 3, 2000

Aldrich Catalog, pp. 237 (Aldrich Chemical Company, Inc. 1992-1993)
(Aldrich).

Claims 1, 3-11, and 14-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Guo '073 in view of Guo '500, and Aldrich.

We affirm the stated rejection for substantially the reasons set forth by the Examiner in the Answers. We add the following for emphasis.

Appellants state that the appealed claims “stand or fall together” (Br. 1). Hence, we select claim 1 as the representative claim on which we decide this appeal.

With regard to obviousness, in *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007), the Supreme Court stated that “Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’”

Here, Appellants do not dispute the Examiner’s determinations that Guo '073 discloses a process for reacting or copolymerizing allylic alcohol, such as propoxylated allylic alcohol together with an alkyl or aryl acrylate or methacrylate monomer using a free radical initiator, reaction temperatures encompassed by the temperature range called for in representative claim 1, and gradual addition of the initiator and reactants to the reactor in forming an acrylate polyol (resin). Rather, Appellants' principal contentions against the propriety of the Examiner’s obviousness rejection center on the claimed

requirement for a monomer conversion greater than 90 percent and for the process requirement for the essential absence of styrene, methyl acrylate and methyl methacrylate.¹

Hence, the issue raised in this appeal is: Have Appellants identified reversible error in the Examiner's obviousness rejection based on these contentions as raised in the Brief? We answer this question in the negative and affirm the Examiner's rejection for substantially the reasons set forth in the Answers.

In particular, we note that Guo '073 does not require the use of an ethylenic monomer, such as styrene, the use of methyl acrylate and/or the use methyl methacrylate as argued to be distinctions. Rather, Guo '073 teaches that the use of ethylenic monomers are optional and that higher alkyl or aryl acrylates or methacrylates, such as ethyl acrylate, butyl acrylate

¹ We note that the Electronic File Wrapper reflects that Appellants submitted excerpts from Principles of Polymerization by George Odian as evidence in rebuttal of the Examiner's rejection after the Final Office action of July 11, 2003. Appellants maintain this evidence was submitted with an Amendment filed on September 29, 2003 and the Examiner maintains that the Odian excerpts were made available to the Examiner on November 23, 2003 (*see* the prosecution history subsequent to the Final Office action). In any event, the Examiner has made it clear that this evidence has not been entered by the Examiner subsequent to a first Remand by a panel of the Board (Suppl. Ans. 6). Moreover, subsequent to a second Remand by a panel of the Board and while responding to additional information supplied by Appellants concerning this matter, the Examiner has not expressed any revision of the earlier determination that the Odian excerpts stand as being non-entered (Advisory actions dated June 01, 2007 and September 21, 2007). Moreover, the record reflects that Appellants have not timely petitioned for higher level supervisory review of these latter determinations by the Examiner. Accordingly, we decide this appeal on the basis that the Odian excerpts stand as non-entered papers. Hence, these excerpts are not before us in rendering a decision in this appeal.

and/or butyl methacrylate, which are each within the scope of the monomers called for in representative appealed claim 1, can be used as the acrylate or methacrylate monomer (Guo '073, col. 3, ll. 1-33). Given the above, and that Guo '073 teaches that the reaction can be carried out with a propoxylated allylic alcohol employing reaction conditions overlapping those required by representative claim 1, it is reasonable to expect that one of ordinary skill in the art would have arrived at reaction conversions substantially the same or similar to Appellants' recited reaction conversion of greater than about 90 percent upon following the guidance provided by Guo '073 and exercising ordinary skill at the time of the invention in determining the workable conditions for carrying out the process of Guo '073.² Furthermore, in an obviousness assessment, skill is presumed on the part of the artisan, rather than the lack thereof. *In re Sovish*, 769 F.2d 738, 742 (Fed. Cir. 1985). Moreover, we are bound to consider the disclosure of each reference for what it fairly teaches or suggests to one of ordinary skill in the art, including not only the specific teachings, but also the inferences which one of ordinary skill in the art would reasonably have been expected to draw therefrom. *See In re Boe*, 355 F.2d 961, 965 (CCPA 1966); and *In re Preda*, 401 F.2d 825, 826 (CCPA 1968).

On this record, we are not persuaded of any reversible error in the Examiner's obviousness assessment in light of the disclosure of Guo '073.³

² Indeed, it is instructive to note that Appellants' comparative Examples C3, C5, and C7 show that achievement of about 90 percent conversion was obtained even while using styrene as a monomer.

³ We need not discuss the teachings of the additional references relied upon the Examiner in the rejection.

CONCLUSION

The decision of the Examiner to reject claims 1, 3-11, and 14-18 under 35 U.S.C. § 103(a) as being unpatentable over Guo '073 in view of Guo '500, and Aldrich is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv)(2006).

AFFIRMED

PL Initials
sld

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